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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,638	09/09/2004	Taiichi Okada	TIP-04-1178	2464

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EXAMINER

BEFUMO, JENNA LEIGH

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/501,638

Applicant(s)

OKADA, TAIICHI

Examiner

Jenna-Leigh Befumo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 15, 2006 has been entered.

Response to Amendment

2. The Amendment submitted on August 15, 2006, has been entered. Claims 3, and 6 – 10 have been cancelled. Claims 1, 4, and 11 have been amended. Therefore, the pending claims are 1, 2, 4, 5, and 11.

3. The amendment to claim 4 is sufficient to overcome 35 USC 112 2nd paragraph rejection set forth in the previous Office Action.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-252740 A (English Translation) in view of Veiga (5,989,660).

The features of JP 07-252740 A and Veiga have been set forth in the previous Office Action. The claims have been amended to include the limitation that the number of entanglements in the filaments of the yarns in the base fabric is at most 3/m. JP 07-252740 A

Art Unit: 1771

discloses that entanglements can be applied to the yarn, and the entanglement can be made high by altering pressure of the air applied to the yarn (paragraph 36).

However, JP 07-252740 A fails to teach a specific number of entanglements are required or a range of entanglements which can be used in the invention. Further, JP 07-252740 A discloses that the invention and the improved permeability, flexibility, and weight properties are a result of using the flattened filaments in the yarn such that major axis of the filaments run parallel to the surface of the fabric, as set forth previously. Entanglements in the yarn would twist the filaments in the yarn and hinder the ability of the filaments to lie parallel to the axis of the fabric. In other words, the less entanglements in the yarns, the less twist and variation in the filaments orientation, and the better the permeability, flexibility and weight properties would be in the finished fabric. Thus, one of ordinary skill in the art would understand that since the improved properties are a result of using flat filaments which run substantially in parallel with the fabric's surface, the filaments should remain as flat as possible along the length of the yarn. Thus, it would have been obvious to one having ordinary skill in the art that if entanglements, which would twist and turn the filaments, are used in the invention of JP 07-252740 A, one of skill in the art would minimize the number of entanglements to maintain the improved permeability, flexibility, and weight properties, while having some entanglement points along the length of the yarn to keep the yarn together during processing and production of the fabric. Further, It would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the optimized number of entanglements, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215. Thus, claims 1, 2, 4, and 5 are rejected.

Art Unit: 1771

6. Claims 1, 2, 4, 5, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-252740 A in view of Li et al. (5,897,929).

The features of JP 07-252740 A and Li et al. have been set forth in the previous Office Action. The claims have been amended to include the limitation that the number of entanglements in the filaments of the yarns in the base fabric is at most 3/m. JP 07-252740 A discloses that entanglements can be applied to the yarn, and the entanglement can be made high by altering pressure of the air applied to the yarn (paragraph 36).

However, JP 07-252740 A fails to teach a specific number of entanglements are required or a range of entanglements which can be used in the invention. Further, JP 07-252740 A discloses that the invention and the improved permeability, flexibility, and weight properties are a result of using the flattened filaments in the yarn such that major axis of the filaments run parallel to the surface of the fabric, as set forth previously. Entanglements in the yarn would twist the filaments in the yarn and hinder the ability of the filaments to lie parallel to the axis of the fabric. In other words, the less entanglements in the yarns, the less twist and variation in the filaments orientation, and the better the permeability, flexibility and weight properties would be in the finished fabric. Thus, one of ordinary skill in the art would understand that since the improved properties are a result of using flat filaments which run substantially in parallel with the fabric's surface, the filaments should remain as flat as possible along the length of the yarn. Thus, it would have been obvious to one having ordinary skill in the art that if entanglements, which would twist and turn the filaments, are used in the invention of JP 07-252740 A, one of skill in the art would minimize the number of entanglements to maintain the improved permeability, flexibility, and weight properties, while having some entanglement points along the

Art Unit: 1771

length of the yarn to keep the yarn together during processing and production of the fabric.

Further, It would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the optimized number of entanglements, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

In re Boesch, 617 F.2d 272, 205 USPQ 215. Thus, claims 1, 2, 4, and 5 are rejected.

Response to Arguments

7. Applicant's arguments filed August 15, 2006 have been fully considered but they are not persuasive. The applicant argues that it JP 07-252741 A would not have the inherently comprise the claimed and it does not teach or enable one of ordinary skill in the art to produce a yarn with less than 3 entanglements per meter (response, pages 4 – 8). However, it is noted first that JP 07-252740 A teaches that entanglements can be used and does not require entanglements in the yarn. Further, when the patent is read for what it teaches as a whole, it clearly teaches that the flatten filaments should have their major axis in parallel with the surface of the fabric, producing a thinner fabric and improved air permeability (paragraph 18). Further, as entanglements are added to the yarns, the filaments in the yarns twist and turn so that the major axis of the yarn is no longer parallel to the surface of the fabric, at the location of the entanglements. Thus, one of ordinary skill in the art would be motivated to produce the yarns with the least amount of entanglements as possible, so that the woven fabric is produced from yarns with a high degree of filaments having their major axis run parallel to the surface of the woven fabric. Therefore, the rejection is maintained.

Further, with regards to the applicant's arguments that JP 07-252740 A is not enabling for the low entanglements, the applicant has not provided sufficient evidence that a woven fabric

Art Unit: 1771

disclosed by JP 07-252740 could not be produced with the lower level of entanglements. The arguments of counsel cannot take the place of evidence. *In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984). Thus, the rejection is maintained.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (571) 272-1472. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jlb
October 27, 2006


JENNA BEFUMO
PRIMARY EXAMINER